

Table of Contents

Mann-Tek design

Dry Disconnect.....	4 - 5
Dry Aviation.....	6 - 7
Dry Gas.....	8 - 10
Ratings & Options.....	11 - 12

Cam & Groove design

Dry Disconnect.....	13 - 15
Actuator style.....	26

Bayonet design

Dry Disconnect.....	16 - 17
---------------------	---------

Safety Break-Aways

Industrial version (breaking bolt design).....	18 - 19
Marine version (breaking bolt design).....	20 - 21
Connection combinations & Options.....	22 - 23
How it works.....	24
Ratings & Kits.....	24 - 25

API fittings

Coupler.....	27
--------------	----

Hose Coupling Safety

Dixon's couplings and retention devices are designed to work safely for their intended use. The selection of the proper hose, coupling and retention device, and the proper application of the coupling to the hose are of utmost importance.

Users must consider the size, temperature, application, media, pressure and hose and coupling manufacturer's recommendations when selecting the proper hose assembly components. Dixon recommends that all hose assemblies be tested in accordance with the Association for Rubber Products Manufacturer's (ARPM) recommendations and be inspected regularly (before each use) to ensure that they are not damaged or have become loose. Visit ARPMINC.com for more information.

Where safety devices are integral to the coupling, they must be working and utilized. The use of supplementary safety devices such as safety clips or safety cables are recommended.

If any problem is detected, couplings must be removed from service immediately.

Dixon is available to consult, train and recommend the proper selection and application of all fittings we sell. We strongly recommend that distributors and end users make use of Dixon's Testing and Recommendation Services. Call 877.963.4966 or click dixonvalve.com to learn more.

Features & Benefits

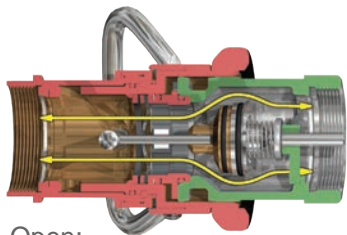
Dry disconnect couplings are designed for the quick and spill free connection and disconnection of hoses and pipelines when transferring expensive hazardous product that is costly to clean up, reprocess or dispose of. Dry disconnects are used by producers of ink, adhesives, fatty acids, pharmaceuticals, liquid soaps, petroleum, chemicals, agricultural and a wide variety of common caustic and specialty acids.



- easy to handle - push and turn - free flow, turn and pull - closed
- time saving - no need to drain hoses or pipe systems
- economical - no loss or spillage of liquids at connection or disconnection
- safety - the valve cannot be opened until the unit is coupled
- environment friendly - accidental spillage eliminated when properly used
- safe and reliable - due to rugged construction
- product life - uncomplicated design and high quality materials ensures long product life
- selectivity - To avoid product contamination caused by connecting a coupler to the wrong adapter, selective versions of the adapters are available. Contact the factory for further information.
- produced according to NATO standard STANAG 3756 and ATOFINA SGM 2049.TUY.C.
- compatible with Mann-Tek, Avery Hardoll and Todo-matic® and any other product produced according to NATO standard STANAG 3756
- Working Pressure -
 - aluminum: **300 PSI** up to 4"
 - brass/ gunmetal *: **300 PSI** up to 4"
 - stainless steel: **360 PSI**
- Optional seals:
 - EPDM
 - NBR - nitrile
 - FFPM
 - FFKM

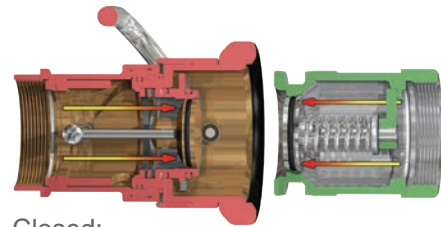
* produced to U.S. government bronze specification G

How It Works



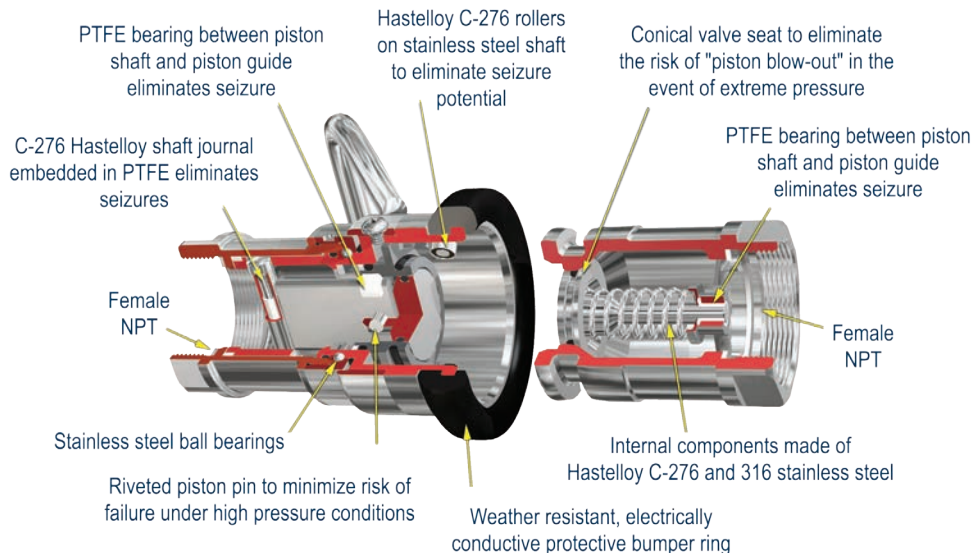
Open:

- Push and turn
it's coupled - full flow



Closed:

- Turn and pull
it's released - no spillage



DDC200SS pictured

Dry Quick Disconnects

Coupler - Hose Unit

Features:

- coupler has built-in swivel
- stainless steel ball bearings
- shaft journal is stainless steel embedded in PTFE to eliminate seizure
- riveted piston pin to minimize the risk for failure under extreme pressure conditions
- the protective ring is a specially formulated, weather resistant and electrically conductive rubber compound
- stainless steel couplers: rollers are Hastelloy C276 on the stainless steel shaft
- aluminum and brass couplers: rollers are aluminum-bronze on the stainless steel shaft
- for information on repair kits visit us on-line at dixonvalve.com



female NPT x coupler - aluminum
3/4" and 1" design



female NPT x coupler - brass
1 1/2" and 2" design



female NPT x coupler - stainless steel
3" design



female NPT x coupler - aluminum
4" design



female NPT x coupler - aluminum
6" design



150# ASA flange x coupler - stainless steel
2" design



150# ASA flange x coupler - stainless steel
3" design



composite plug

dry quick disconnect couplers x female NPT with FKM seals

Female NPT	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal ¹
3/4"	56 mm	DDC075SS	DDC075AL	DDC075BR
1"	56 mm	DDC100SS	DDC100AL	DDC100BR
1 1/2"	70 mm	DDC150SS	DDC150AL	DDC150BR
2"	70 mm	DDC200SS	DDC200AL	DDC200BR
3"	105 mm	DDC300SS105	DDC300AL105	DDC300GM105
3"	119 mm	DDC300SS	DDC300AL	DDC300GM
4"	164 mm	DDC400SS	DDC400AL	DDC400GM
6"	238 mm	DDC600SS	DDC600AL	---

¹ produced to U.S. government bronze specification G

dry quick disconnect couplers x 150# ASA flange with FKM seals

150# Flange	Body Size	316 Stainless Steel
2"	70 mm	DDC200SSFL
3"	119 mm	DDC300SSFL
4"	164 mm	DDC400SSFL
6"	238 mm	DDC600SSFL
8"	272 mm	DDC800SSFL

Dust Plugs for Couplers

Feature:

- Composite (Polyeten PE-HD 300) plugs provide good protection against corrosion and withstands hot and cold environments.

dust plugs for couplers

Size	Body Size	Polyeten PE-HD 300
3/4" and 1"	56 mm	DDDP075
1 1/2" and 2"	70 mm	DDDP150
3"	105 mm	DDDP300105
3"	119 mm	DDDP300
4"	164 mm	DDDP400
6"	238 mm	DDDP600 ²

² 6" dust plug is aluminum

Dry Quick Disconnects Adapter - Tank Unit

Features:

- adapter is usually installed on the tank or manifold
- conical valve seat reduces the risk for "piston blow out"
- PTFE bearings between the piston shaft and the piston guide eliminate the risk for seizure
- for information on repair kits visit us on-line at dixonvalve.com
- aluminum adapter - aluminum poppet, stainless steel internal parts
- stainless steel adapter - stainless steel poppet, stainless steel internal parts
- brass / gunmetal * adapter - brass poppet, brass and stainless steel internal parts

dry quick disconnect adapters x female NPT with FKM seals

Female NPT	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal ¹
¾"	56 mm	DDA075SS	DDA075AL	DDA075BR
1"	56 mm	DDA100SS	DDA100AL	DDA100BR
1½"	70 mm	DDA150SS	DDA150AL	DDA150BR
2"	70 mm	DDA200SS	DDA200AL	DDA200BR
3"	105 mm	DDA300SS105	DDA300AL105	DDA300GM105
3"	119 mm	DDA300SS	DDA300AL	DDA300GM
4"	164 mm	DDA400SS	DDA400AL	DDA400GM
6"	238 mm	DDA600SS	DDA600AL	---

¹ produced to U.S. government bronze specification G

dry quick disconnect adapters x 150# ASA flange with FKM seals

150# ASA	Body Size	316 Stainless Steel	Aluminum	Brass / Gunmetal ¹
¾"	56 mm	DDA075SSFL	---	---
1"	56 mm	DDA100SSFL	DDA100ALFL	DDA100BRFL
1½"	70 mm	DDA150SSFL	DDA150ALFL	DDA150BRFL
2"	70 mm	DDA200SSFL	DDA200ALFL	DDA200BRFL
3"	105 mm	DDA300SS105FL	DDA300AL105FL	DDA300GM105FL
3"	119 mm	DDA300SSFL	DDA300ALFL	DDA300GMFL
4"	164 mm	DDA400SSFL	DDA400ALFL	DDA400GMFL
6"	238 mm	DDA600SSFL	DDA600ALFL	---
8"	272 mm	DDA800SSFL	---	---

¹ produced to U.S. government bronze specification G

dry quick disconnect adapters x TTMA flange with FKM seals

TTMA	Body Size	Aluminum
3"	105 mm	DDA300AL105TTMA
3"	119 mm	DDA300AL119TTMA
4"	164 mm	DDA400AL164TTMA



adapter x female NPT - DDA100BR



adapter x 150# ASA flange - DDA200SSFL



adapter x TTMA flange - DDA300AL119TTMA

Dust Caps for Adapters

Feature:

- Composite (Polyeten PE-HD 300) caps provide good protection against corrosion and withstands hot and cold environments.

dust caps for adapters

Size	Body Size	Polyeten PE-HD 300	Rubber
¾" and 1"	56 mm	DDDC075	---
1½" and 2"	70 mm	DDDC150	DGDC200
3"	105 mm	DDDC300105	DGDC300
3"	119 mm	DDDC300	---
4"	164 mm	DDDC400	---
6"	238 mm	DDDC600 ²	---

² 6" dust cap is aluminum



composite cap



rubber cap

Dry Aviation Couplings

Coupler - Hose Unit

Applications: Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. **They are not configured for under-wing refueling.**

Features:

- body: high strength aluminum
- coupling ring: gunmetal
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are aluminum and stainless steel
- **150 PSI** working pressure
- stainless steel ball bearings
- gunmetal (*produced to U.S. government bronze specification G*) coupling ring minimizes the risk of seizure
- stainless steel shaft journal embedded in PTFE eliminates seizure
- PTFE bearings between the driving plate and the piston guide eliminate the risk of seizure
- riveted piston pin minimizes the risk of failure under extreme pressure conditions
- the protective ring is a specially formulated, weather resistant and electrically conductive rubber compound



female NPT x coupler - DAC250AL

aviation couplers x female NPT with FKM seals

Female NPT	Body Size	Aluminum
2½"	ISO 45	DAC250AL
3"	ISO 45	DAC300AL

aviation couplers x female BSP with FKM seals

Female BSP	Body Size	Aluminum
2½"	ISO 45	DAC250ALBSP
3"	ISO 45	DAC300ALBSP

Sight Flow Indicators

Features:

- filter / screen can be inspected through the sight glass
- filter / screen is easily removed if cleaning is required
- screen is 100 mesh



sight flow indicator - ASFI25T25B

aviation sight flow indicator with filter / screen

Female Thread	Male Thread	Aluminum
2½" NPT	2½" BSP	ASFI25T25B
3" NPT	3" BSP	ASFI30T30B
2½" NPT	2½" NPT	ASFI25T25T
3" NPT	3" NPT	ASFI30T30T

Dust Plug for Couplers

Feature:

- Composite (Polyeten PE-HD 300) plug provides good protection against corrosion and withstands hot and cold environments.

composite dust plug for couplers

Size	Body Size	Polyeten PE-HD 300
2½"	ISO 45	DADP250



composite plug

Dry Aviation Couplings Adapter - Tank Unit

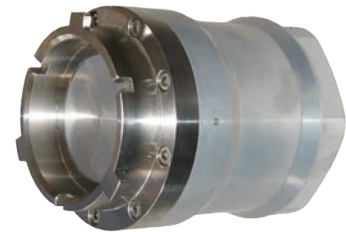
Applications: Dry aviation couplings are designed for use in aviation refueling systems. Manufactured to accept the international standard 2½" point bayonet, hose end refueling nozzles according to: ISO45 / MS24484 / STANAG 3105 / British Aerospace Spec. 2C14. *They are not configured for under-wing refueling.*

Features:

- gunmetal coupling ring minimizes the risk of seizure
- PTFE bearings between the piston shaft and the piston guide eliminate the risk of seizure
- conical valve seat eliminates the risk of "piston blow out" when extreme pressure is used
- body: high strength aluminum
- bayonet flange and inner parts: stainless steel, aluminum
- all wetted parts are aluminum and stainless steel
- coupling ring: gunmetal
- **150 PSI** working pressure at ambient temperature (70°F)

aviation adapters x female NPT with FKM seals

Female NPT	Body Size	Aluminum
2½"	ISO 45	DAA250AL
3"	ISO 45	DAA300AL



adapter x female NPT - DAA250AL

aviation adapters x 150# ASA flange with FKM seals

Female BSP	Body Size	Aluminum
2½"	ISO 45	DAA250ALFL
3"	ISO 45	DAA300ALFL



adapter x 150# ASA flange - DAA250ALFL

Dust Cap for Adapter

Feature:

- Composite (Polyeten PE-HD 300) cap provides good protection against corrosion and withstands hot and cold environments.

composite dust caps for adapters

Size	Body Size	Polyeten PE-HD 300
2½"	ISO 45	DADC250



composite cap

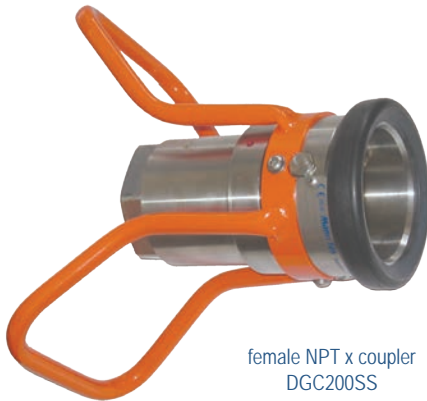
Dry Gas Couplings

Coupler - Hose Unit

Applications: Dry gas couplings are designed for safe loading and discharge of bulk delivery trucks and rail cars. They are quick and easy to connect and can be connected to a tank unit with pressures up to **225 PSI**. If the pressure is higher you can equip the couplings with a pressure relief valve. The easy to connect pressure relief valve dissipates trapped fluid pressure into the hose coupler without spillage. The primary application of dry gas couplings is in the handling of LPG - Propane and Butane.

Features:

- stainless steel and brass / gunmetal (*produced to U.S. government bronze specification G*)
- FKM seals
- female NPT and ASA flanges
- **360 PSI** working pressure at ambient temperature (70°F)
- safe handling of LPG
- easy to use and saves time
- reliable and easy to maintain
- can be coupled against higher pressure
- minimizes the risk of cold burns
- minimizes spillage and product loss
- minimizes health risks
- keeps the environment free of hazardous vapors and liquids



female NPT x coupler
DGC200SS

dry gas couplers x female NPT with FKM seals

Female NPT	Body Size	Stainless Steel
1"	56 mm	DGC100SS
2"	71 mm	DGC200SS
3"	119 mm	DGC300SS

Dust Plugs for Couplers

Feature:

- Composite (Polyeten PE-HD 300) plugs provide good protection against corrosion and withstand hot and cold environments



composite plug

composite dust plugs for couplers

Size	Body Size	Polyeten PE-HD 300
1"	56 mm	DGDP100
2"	71 mm	DGDP200
3"	119 mm	DGDP300

Dry Gas Couplings Adapter - Tank Unit

Applications: Dry gas couplings are designed for safe loading and discharge of bulk delivery trucks and rail cars. They are quick and easy to connect and can be connected to a tank unit with pressures up to **225 PSI**. If the pressure is higher you can equip the couplings with a pressure relief valve. The easy to connect pressure relief valve dissipates trapped fluid pressure into the hose coupler without spillage. The primary application of dry gas couplings is in the handling of LPG - Propane and Butane.

Features:

- safe handling of LPG
- easy to use and saves time
- reliable and easy to maintain
- can be coupled to a tank unit with pressures up to **225 PSI**
- minimizes the risk of cold burns
- minimizes spillage and product loss
- minimizes health risks
- keeps the environment free of hazardous vapors and liquids
- stainless steel and brass / gunmetal (*produced to U.S. government bronze specification G*)
- FKM seals
- female NPT, female ACME thread and ASA flanges
- **360 PSI** working pressure

dry gas adapters x female NPT with FKM seals

Female NPT	Body Size	Stainless Steel
1"	56 mm	DGA100SS
2"	71 mm	DGA200SS
3"	119 mm	DGA300SS



adapter x female NPT - DGA200SS

dry gas adapters x female ACME thread with FKM seals

Female ACME	Body Size	Stainless Steel
1¼"	56 mm	DGA100SS175
3¼"	71 mm	DGA200SS325

dry gas adapters x 150# ASA flange with FKM seals

150# ASA	Body Size	Stainless Steel
1"	56 mm	DGA100SSFL
2"	71 mm	DGA200SSFL
3"	119 mm	DGA300SSFL



adapter x 150# ASA flange - DGA200SSFL

Dust Caps

dust caps for adapters

Size	Body Size	Polyeten PE-HD 300	Rubber
1"	56 mm	DGDC100	---
2"	71 mm	---	DGDC200
3"	119 mm	---	DGDC300



rubber cap

Dry Disconnect Fittings for Steam Service

Applications:

Designed to fit hoses carrying steam used in chemical (heating), pharmaceutical (disinfection and sterilization) and at loading bays

Features:

- coupling house and all inner parts: stainless steel
- seals: EPDM 291, other materials available, contact Dixon
- unintentional separation is eliminated preventing accidents and avoiding unintended down time
- performance unaffected by surface rust
- lockable versions are available, contact Dixon



female NPT x adapter

dry disconnect adapter x female NPT

Female NPT	Body Size	Stainless Steel
3/4"	56mm	DDSA075SS
1"	56mm	DDSA100SS



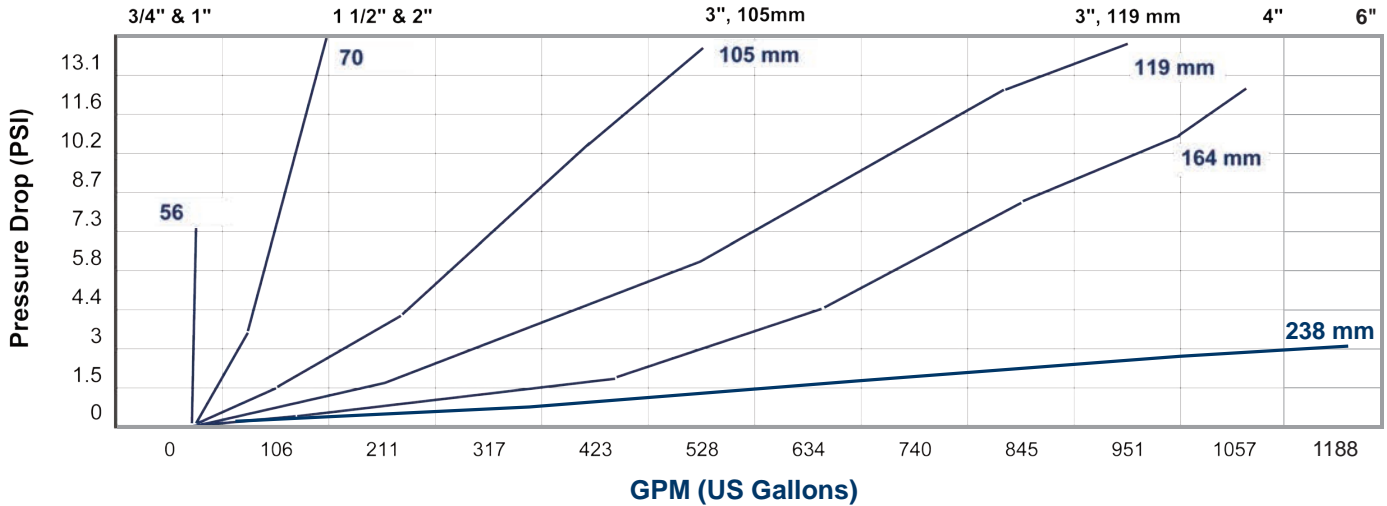
female NPT x coupler

dry disconnect couple x female NPT

Female NPT	Body Size	Stainless Steel
3/4"	56mm	DDSC075SS
1"	56mm	DDSC100SS

Dry Disconnect Couplings

Flow Rate
Media: Water Temp: 60° F



Spillage on Disconnection

The test was made by coupling and uncoupling 10 times under pressures between one (1) and ten (10) bars. The result we got is a total spillage over 10 coupling cycles and an average spillage on each coupling cycle. The test was carried out with water under ambient temperature.

Size	Socket diameter	Total spill 10 cycles	Average spill 1 cycle
1" – DN 25	56 mm	1 ml	0.1 ml
2" – DN 50	70 mm	3 ml	0.3 ml
2½" – DN 65	105 mm	8 ml	0.8 ml
3" – DN 80	119 mm	10 ml	1.0 ml
4" – DN 100	164 mm	35 ml	3.5 ml

Options for Hose and Tank Units



Electronic Sensors

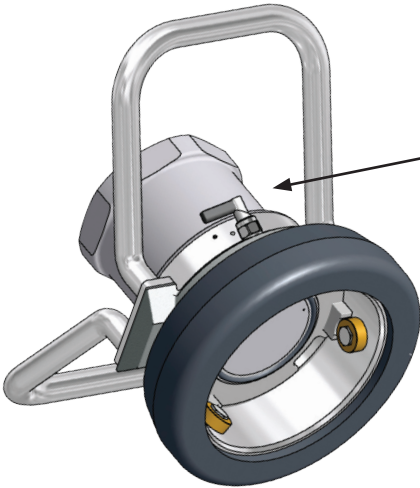
Electronic Sensors detect the position of the driving plate inside of the hose unit.

No modification on the tank is required. This makes it possible to identify if the hose unit is connected to a tank unit and if they are in an open position.



Dry Disconnect Couplings Options for Hose and Tank Units

Locking Devices



4" Hose unit with locking device

Locking Devices eliminate the unintentional disconnection when subjected to vibration from transfer pumps



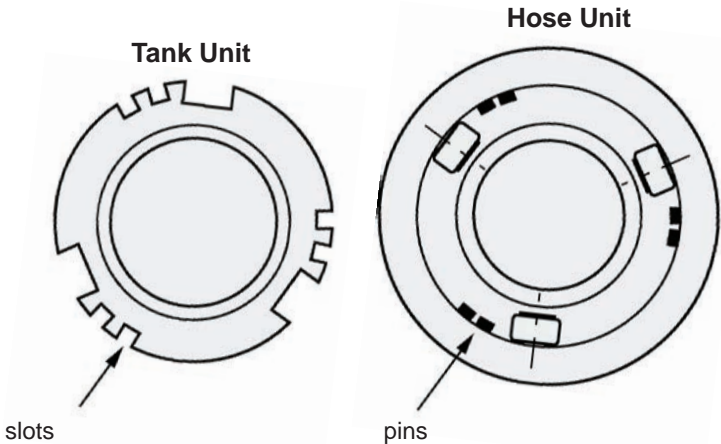
2" Hose unit with locking device

Selectivity Options

Selectivity versions of Hose and Tank units are available to prevent the accidental mixing of media.

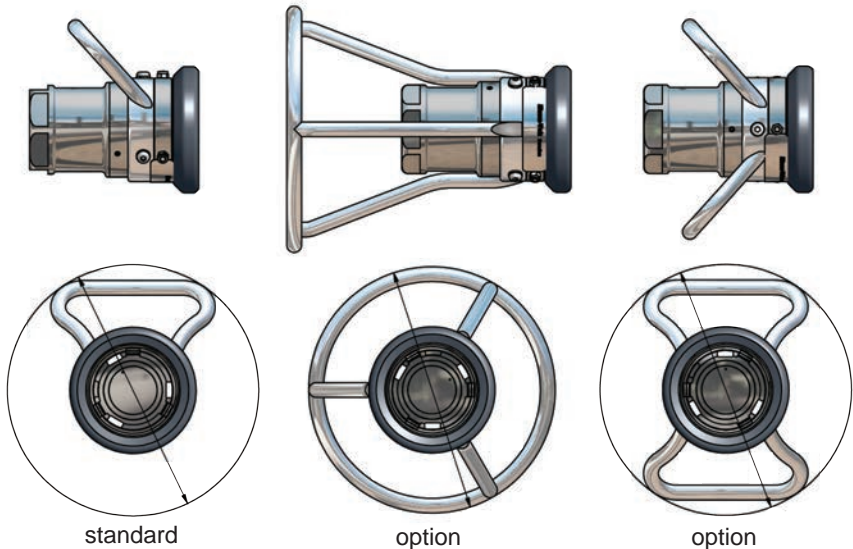
The Tank units are furnished with slots and the Hose unit with pins that interlock upon connection.

The number of selectivity options are possible depending on coupling size.



Handle Options

Optional handles are available for 1"-4" Hose couplers. 2" Hose unit shown.



Dry Break Cam & Groove Style Dry Disconnect Couplings

Couplers

Features:

- dry disconnect coupler has automatic closing poppet assembly
- heavy duty stainless steel crank and link provide long service life
- stainless steel handle allows product exposure to corrosive chemicals or washdown service
- strong handle attachment prevents bending of crank assembly
- fully interchangeable with Kamvalok (OPW trademark) style fittings
- aluminum fittings have stainless steel¹ internals
- for pressure ratings at other temperatures, contact the factory
- Dixon EZ Boss-Lock cam arms standard on all fittings, provide high security from accidental opening due to vibration or snagging
- large paddle type cam arms standard on 3" fittings, allow for an easy grip
- for information on repair kits visit us on-line at dixonvalve.com

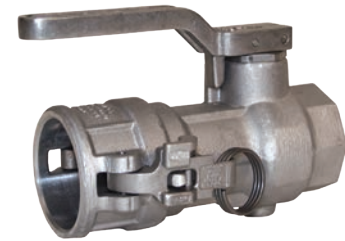
Must be used with a DBA style adapter for coupler to operate. Adapter sold separately. (see next page)



- ¹ stainless steel corrosion resistance is comparable to 304 stainless steel
- ² FFPM gasket, main seal O-ring and handle O-ring. PTFE seals on cylinder assembly, stuffing box, and seal under poppet screw.

coupler x female NPT

Female NPT	Coupler Size	Seal Material	Aluminum		Stainless Steel ¹	
			Dixon #	OPW #	Dixon #	OPW #
1½"	2"	Buna	DBC61-150	1711D-AL15/1761	DBC71-150	1771D-SS15
2"	2½"		DBC61-200	1711D-AL20/1761	DBC71-200	1771D-SS20
3"	4"		DBC61-300	1711D-AL30	DBC71-300	1771D-SS30
1½"	2"	FKM	DBC62-150	1712D-AL15/1762	DBC72-150	1772D-SS15
2"	2½"		DBC62-200	1712D-AL20/1762	DBC72-200	1772D-SS20
3"	4"		DBC62-300	1712D-AL30	DBC72-300	1772D-SS30
1½"	2"	PTFE Encap. Silicone and FFPM	DBC63-150	1763D-AL15	DBC73-150	1773D-SS15
2"	2½"		DBC63-200	1763D-AL20	DBC73-200	1773D-SS20
3"	4"		DBC63-300	1763D-AL30	DBC73-300	1773D-SS30
1½"	2"	EPT	DBC64-150	1764D-AL15	DBC74-150	1774D-SS15
2"	2½"		DBC64-200	1764D-AL20	DBC74-200	1774D-SS20
3"	4"		DBC64-300	1764D-AL30	DBC74-300	1774D-SS30
1½"	2"	FFPM and PTFE	---	---	DBC76-150	1776D-SS15
2"	2½"		DBC66-200	1766D-AL20	DBC76-200	1776D-SS20
3"	4"		---	---	DBC76-300	1776D-SS30
1½"	2"	PTFE Encap. FKM and FFPM	---	---	DBC77-150	1777D-SS15
2"	2½"		---	---	DBC77-200	1777D-SS20
3"	4"		---	---	DBC77-300	1777D-SS30
3"	4"	FKM B	DBC69-300	1769D-AL30	DBC79-300	1779D-SS30



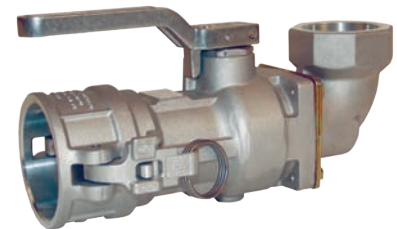
coupler x female NPT - DBC71-200



coupler x female NPT - DBC61-300

greaseless coupler x female NPT

Female NPT	Coupler Size	Seal Material	Aluminum	Stainless Steel
1½"	2"	PTFE Encap. FKM and FFPM	DBC67-150-GL	DBC77-150-GL
2"	2½"		DBC67-200-GL	DBC77-200-GL



coupler x 90° swivel female NPT - DSB61-200

coupler x 90° swivel female NPT

Female NPT	Coupler Size	Seal Material	Aluminum	
			Dixon #	OPW #
2"	2½"	Buna	DBS61-200	1711ES-0200
2"	2½"	FKM	DBS62-200	1712ES-0200
2"	2½"	PTFE Encap. Silicone and FFPM	DBS63-200	---



locking kit - DBCL200



dust plug - G200-DP-AL

Features:

Locking Kit for Couplers

- prevents unintentional opening of poppet assembly

Description	Aluminum
for use with 1½" and 2" cam and groove couplers	DBCL-200
for use with 3" cam and groove couplers	DBCL-300

Dust Plugs for Couplers

Size	Aluminum	Stainless Steel
2"	G200-DP-AL	G200-DP-SS
2½"	G250-DP-AL	G250-DP-SS
4"	G400-DP-AL	G400-DP-SS

Dry Break Cam & Groove Style Dry Disconnect Couplings

Adapters

Applications: Compatible with most cam and groove style dry disconnects, the Bayco dry disconnect helps prevent spillage from normal or accidental disconnects. A spring loaded sealing device is designed to "snap" closed should the valve become disconnected with the poppet open, significantly limiting liquid loss.

Features:

- two-piece design for easy rebuilding of adapters
- fully interchangeable with Kamvalok (OPW trademark) style fittings
- aluminum fittings have aluminum nose piece and brass piston
- for pressure ratings at other temperatures, contact the factory
- for information on repair kits visit us on-line at dixonvalve.com



adapter x female NPT - DBA71-200



adapter x female NPT - DBA11-300



adapter x flange - DBAF71-200



vapor adapter x female NPSM - DBAV73-2030

dust cap 200-DC-AL



Dust Caps for Adapters

adapter x female NPT

Female NPT	Adapter Size	Seal Material	Aluminum		Stainless Steel ¹	
			Dixon #	OPW #	Dixon #	OPW #
1½"	2"	Buna	DBA11-150	1611AN-AL15	DBA71-150	1671AN-SS15
2"	2½"		DBA11-200	1611AN-AL20	DBA71-200	1671AN-SS20
3"	4"		DBA11-300	1611AN-AL30	DBA71-300	1671AN-SS30
1½"	2"	FKM	DBA12-150	1612AN-AL15	DBA72-150	1672AN-SS15
2"	2½"		DBA12-200	1612AN-AL20	DBA72-200	1672AN-SS20
3"	4"		DBA12-300	1612AN-AL30	DBA72-300	1672AN-SS30
1½"	2"	PTFE Encap. Silicone	DBA63-150	1613AN-AL15	DBA73-150	1673AN-SS15
2"	2½"		DBA63-200	1613AN-AL20	DBA73-200	1673AN-SS20
3"	4"		DBA63-300	1613AN-AL30	DBA73-300	1673AN-SS30
1½"	2"	EPT	DBA64-150	1614AN-AL15	DBA74-150	1674AN-SS15
2"	2½"		DBA64-200	1614AN-AL20	DBA74-200	1674AN-SS20
3"	4"		DBA64-300	1614AN-AL30	DBA74-300	1674AN-SS30
1½"	2"	FFPM	DBA66-150	1616AN-AL15	DBA76-150	1676AN-SS15
2"	2½"		DBA66-200	1616AN-AL20	DBA76-200	1676AN-SS20
3"	4"		DBA66-300	1616AN-AL30	DBA76-300	1676AN-SS30
1½"	2"	PTFE Encap. FKM	---	---	DBA77-150	1677AN-SS15
2"	2½"		---	---	DBA77-200	1677AN-SS20
3"	4"		---	---	DBA77-300	1677AN-SS30
3"	4"	FKM B	DBA69-300	1619AN-AL30	---	---

jump size adapter x female NPT

Female NPT	Adapter Size	Seal Material	Aluminum	
			Dixon #	OPW #
2"	2"	Buna	DBA11-1520	---
2"	2"	FKM	DBA12-1520	---

adapter x 150# ASA flange

Flange Size	Adapter Size	Seal Material	Stainless Steel ¹	
			Dixon #	OPW #
2"	2"	FKM	DBAF72-1520	1672ANF-SS15
2"	2½"		DBAF72-200	1672ANF-SS20
3"	4"		DBAF72-300	1672ANF-SS30
2"	2"	PTFE Encap. Silicone	DBAF73-1520	1673ANF-SS15
2"	2½"		DBAF73-200	1673ANF-SS20
3"	4"		DBAF73-300	1673ANF-SS30
2"	2"	EPT	DBAF74-1520	1674ANF-SS15
2"	2½"		DBAF74-200	1674ANF-SS20
3"	4"		DBAF74-300	1674ANF-SS30
2"	2"	FFPM	DBAF76-1520	1676ANF-SS15
2"	2½"		DBAF76-200	1676ANF-SS20
3"	4"		DBAF76-300	1676ANF-SS30

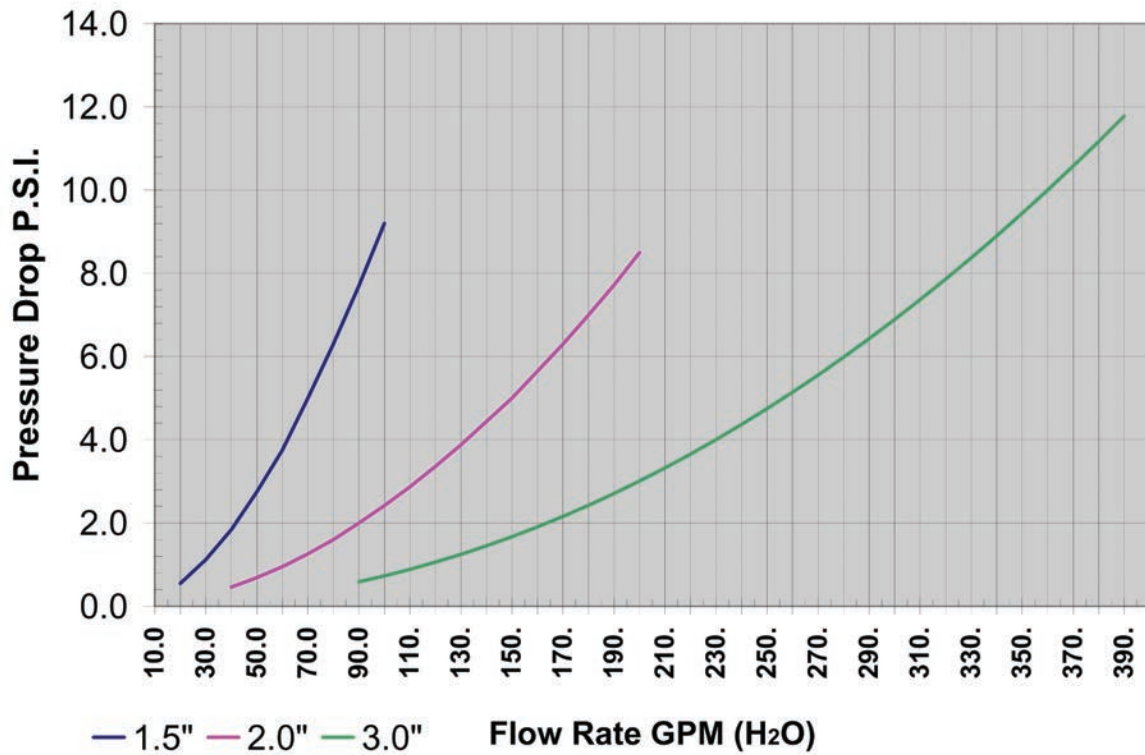
vapor adapter x female NPSM

Size	Aluminum	Stainless Steel	Female NPSM	Adapter Size	Seal Material	Stainless Steel ¹	
						Dixon #	OPW #
2"	G200-DC-AL	G200-DC-SS					
2½"	G250-DC-AL	G250-DC-SS					
4"	G400-DC-AL	G400-DC-SS					
			3"	2"	PTFE	DBAV73-2030	2173AVN

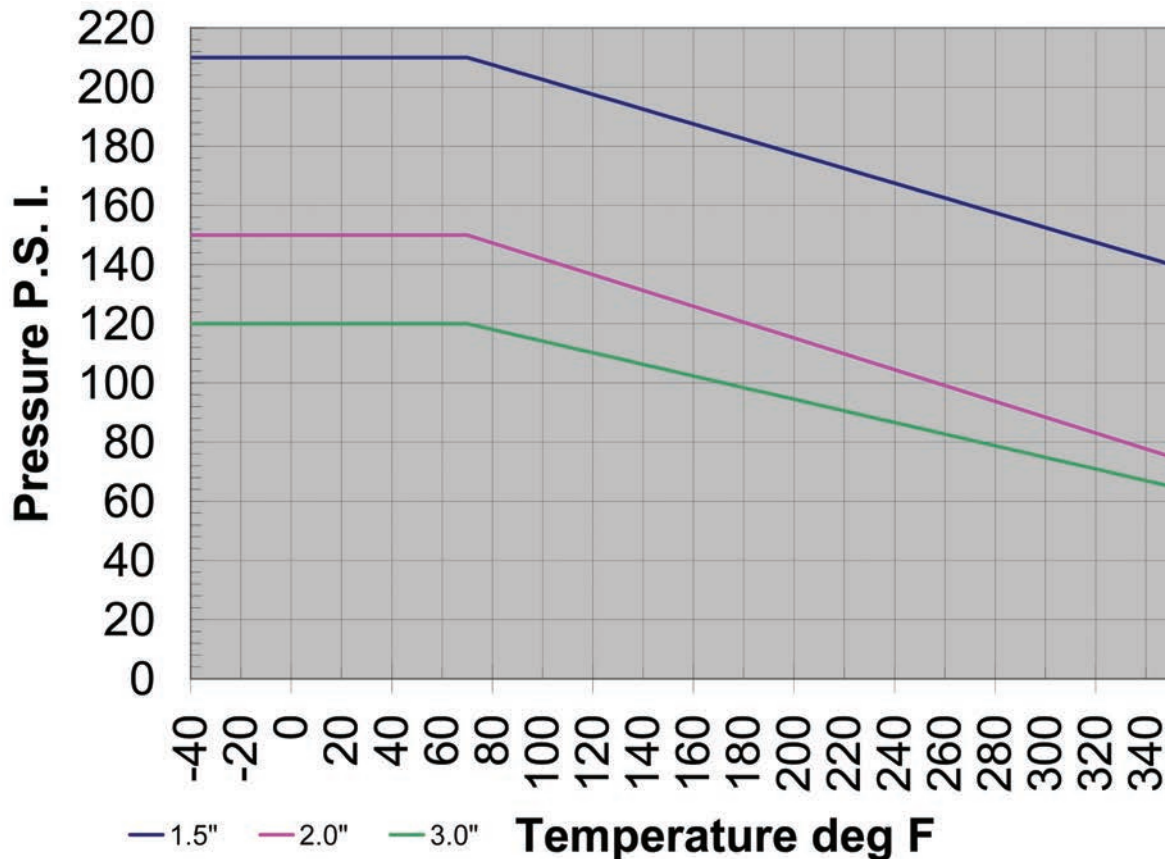
¹ stainless steel corrosion resistance is comparable to 304 stainless steel

Dry Break Cam & Groove Style Dry Disconnect Couplings

Flow Chart



Pressure / Temperature Chart



Bayonet Style Dry Disconnect Couplings

Couplers



coupler x straight female NPT - BC62-200



coupler x straight swivel female NPT - BSS62-300



coupler x 90° swivel female NPT - BS62-200



coupler x 90° swivel female NPT - BS62-300



dust plug BCP-200

Applications: Bayco brand BA and BS series bayonet dry disconnect fittings are designed for use in the fuel and lube oil service industry.

Features:

- These fittings are compatible with Emco Wheaton™ Dry Break™, commonly found in these services.
- The maximum pressure rating for fittings is **85 PSI** at 70°F, for pressure ratings at other temperatures contact Dixon.
- for information on repair kits visit us on-line at dixonvalve.com

bayonet style coupler x straight female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BC61-200	J72C-ABN0-B
2"	FKM	BC62-200	J72C-AVN0-B

bayonet style coupler x straight swivel female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BSS61-200	J72C-ABN1-B
2"	FKM	BSS62-200	J72C-AVN1-B
3"	Buna	BSS61-300	J73C-ABN1-B
3"	FKM	BSS62-300	J73C-AVN1-B

bayonet style coupler x 90° swivel female NPT

Size	Seal Material	Anodized Aluminum	
		Dixon #	Emco Wheaton™ #
2"	Buna	BS61-200	J72C-ABN2-B
2"	FKM	BS62-200	J72C-AVN2-B
3"	Buna	BS61-300	J73C-ABN2-B
3"	FKM	BS62-300	J73C-AVN2-B

Dust Plugs for Couplers

Size	Part #
2"	BCP-200
3"	BCP-300

- Rubber dust plugs come with stainless steel chains.

Bayonet Style Dry Disconnect Couplings Adapters

Applications: Bayco brand BA and BS series bayonet dry disconnect fittings are designed for use in the fuel and lube oil service industry.

Features:

- These fittings are compatible with Emco Wheaton™ Dry Break™, commonly found in these services.
- The maximum pressure rating for fittings is **85 PSI** at 70°F, for pressure ratings at other temperatures contact Dixon.
- for information on repair kits visit us on-line at dixonvalve.com

bayonet style adapter x female NPT

Size	Seal Material	Stainless Steel	
		Dixon #	Emco Wheaton™ #
2"	Buna	BA31-200	J72A-BBN0-B / J72A-ABN0-B
2"	FKM	BA32-200	J72A-BVN0-B / J72A-AVN0-B



adapter x female NPT - BA32-200

bayonet style adapter x female NPT

Size	Seal Material	Brass	
		Dixon #	Emco Wheaton™ #
3"	Buna	BA31-300	J73A-BBN0-B
3"	FKM	BA32-300	J73A-BVN0-B



adapter x female NPT - BA31-300

bayonet style adapter x female NPT

Size	Seal Material	Aluminum	
		Dixon #	Emco Wheaton™ #
3"	Buna	BA61-300	J73A-ABN0-B
3"	FKM	BA62-300	J73A-AVN0-B



adapter x female NPT - BA62-300

Dust Caps for Adapters

Size	Body Size	Polyeten PE-HD 300
2"	70mm	DDDC150
3"	105mm	DDDC300105



composite dust cap DDDC300

Size	Body Size	Rubber
2"	71mm	BAC-200
3"	119mm	BAC-300



rubber dust cap BAC-300

- Rubber dust plugs come with stainless steel chains.

Industrial Safety Break-Away Couplings - Breaking Bolt Series

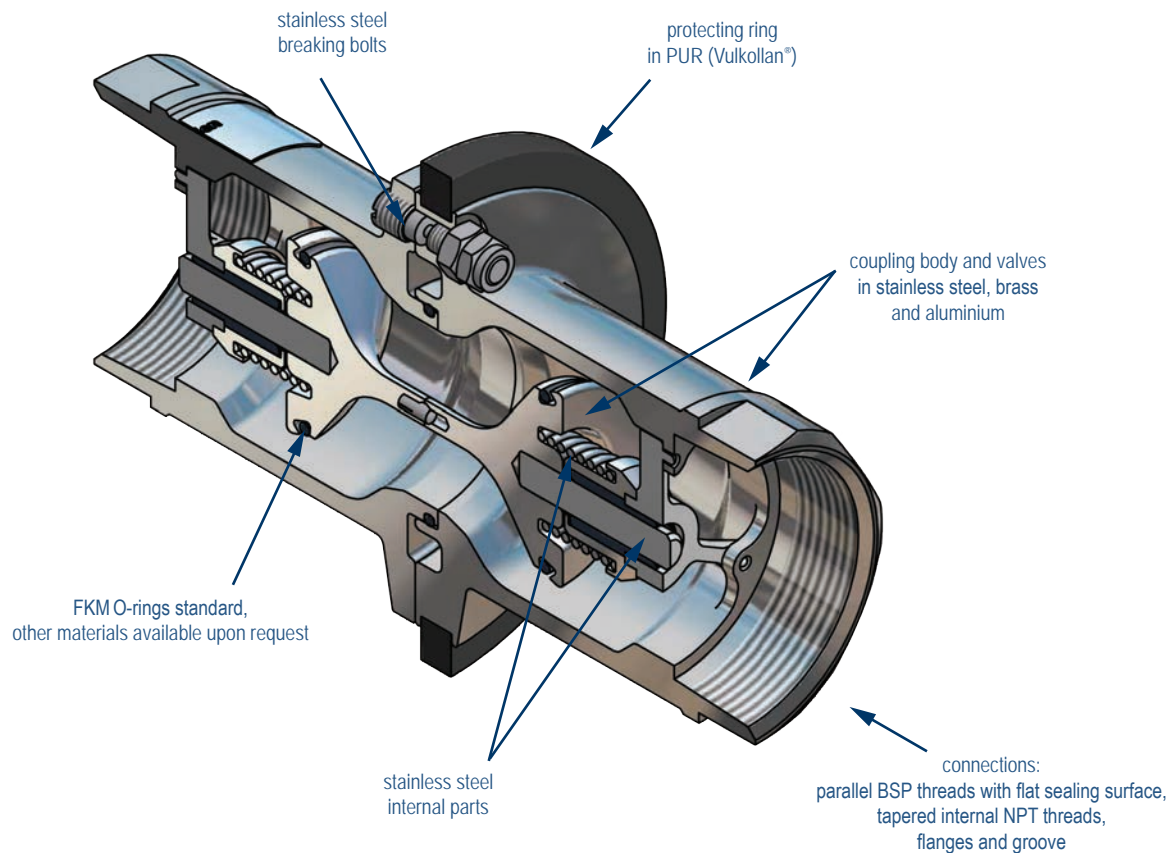
Advantages



Industrial break-away coupling can be utilized for most industrial product transfer installations.

The industrial SBCouplings are specifically designed to be able to activate with a tensile force being applied at an angle to the plane of the coupling housing, up to 90 degrees.

Key Features



Safety Break-Away Couplings Industrial Version

The breaking bolt industrial breakaway coupling is designed to minimize spillage and damage associated with drive away and pull away incidents.

Features:

- **designed to be installed between a fixed point (pipe, pump, manifold) and a hose**
- coupling automatically senses an excessive load, closes the valves and disconnects (*see page 24*)
- simple dependable mechanism
- high flow rate / low pressure drop
- female NPT is standard, optional ASA/ DIN flanges or male NPT are available
- FKM is standard seal
- Working pressure: stainless steel **360 PSI** and aluminum **230 PSI** at ambient temperature (70°F)
- for information on repair kits visit us on-line at dixonvalve.com



SBC200AL - aluminum

industrial breaking bolt series

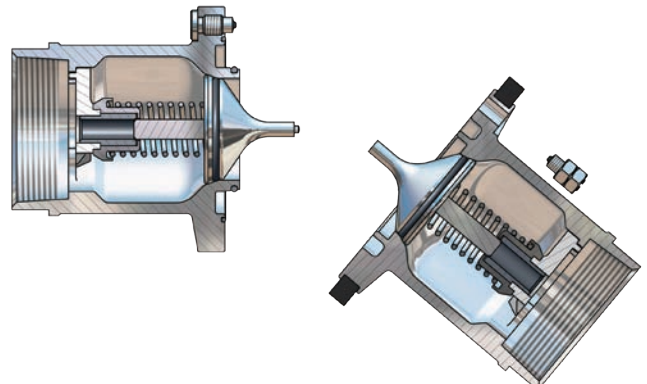
Size	DN	Flow Rate GPM	Width	Length	Weight lbs.		316 Stainless Steel	Aluminum
					SS	AL		
2"	50	200	4.5"	7"	6.8	2.4	SBC200SS	SBC200AL
3"	80	650	6.8"	11"	19.6	7.3	SBC300SS	SBC300AL
4"	100	800	8.3"	12"	35.9	12.8	SBC400SS	SBC400AL
5"	125	1100	10.6"	14"	69.4	26.6	SBC500SS	SBC500AL
6"	150	1500	12"	16"	103.0	37.6	SBC600SS	SBC600AL
2"	50	200	4.5"	7"	6.2	2.2	SBC200SSMNPT¹	SBC200ALMNPT¹
3"	80	650	6.8"	11.3"	18.7	7.0	SBC300SSMNPT¹	SBC300ALMNPT¹
4"	100	800	8.3"	12.9"	36.8	13.0	SBC400SSMNPT¹	SBC400ALMNPT¹
5"	125	1100	10.6"	13.8"	66.1	26.6	SBC500SSMNPT¹	SBC500ALMNPT¹
6"	150	1500	12"	16"	103.0	37.6	SBC600SSMNPT¹	SBC600ALMNPT¹
2"	50	200	4.5"	7"	5.7	7.5	SBC200SSFL	SBC200ALFL
3"	80	650	6.8"	8.5"	25.4	12.1	SBC300SSFL	SBC300ALFL
4"	100	800	9.3"	9"	43.2	17.2	SBC400SSFL	SBC400ALFL
5"	125	1100	10.6"	14"	70.4	26.6	SSBC500SSFL	SSBC500ALFL
6"	150	1500	12.5"	15.1"	110.0	40.0	SBC600SSFL²	SBC600ALFL²
8"	200	3700	13.5"	17.7"	157.0	--	SBC800SSFL²	SBC800ALFL²

¹ male NPT

² 150# ASA flange



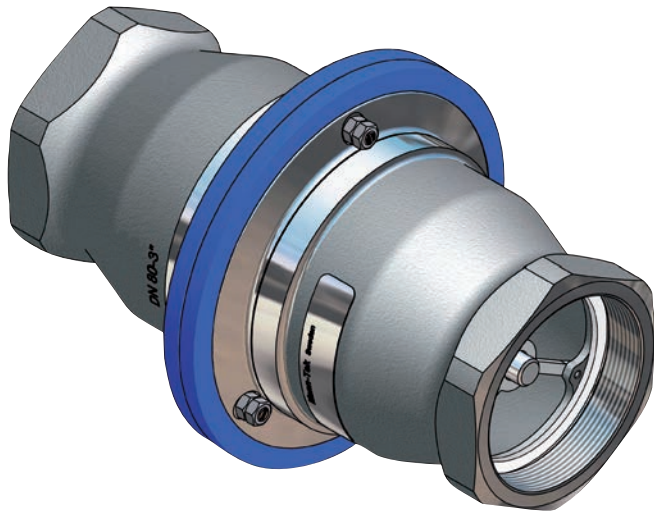
Industrial break-aways are typically installed on a loading arm or manifold and hose assemblies, where at least one side of the coupling is attached to a rigid or fixed point.



Release with a tensile force being applied at an angle to the plane of the coupling housing, up to 90 degrees.

Marine Safety Break-Away Couplings - Breaking Bolt Series

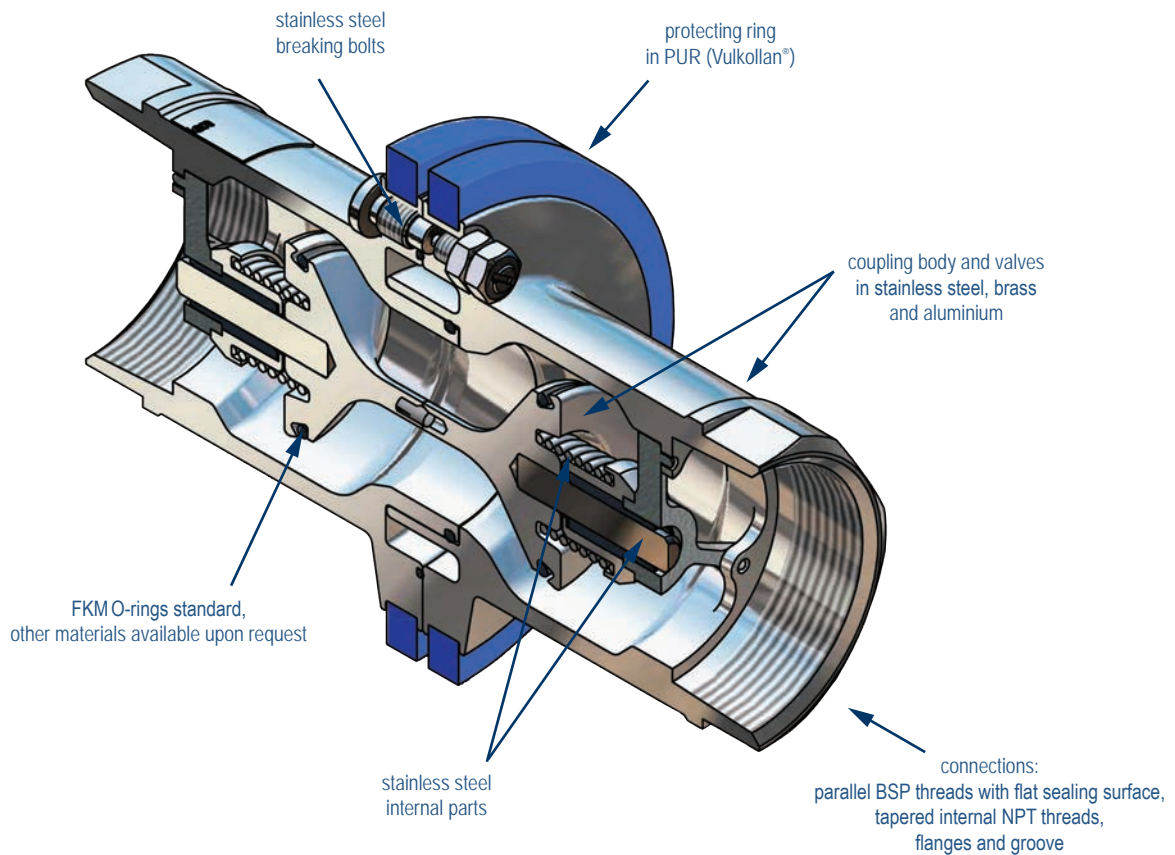
Advantages



Marine version of the safety break-away couplings are designed specifically to be installed within a hose string, where the coupling would have a length of hose attached to both sides.

This coupling incorporates the same internal mechanism as our Industrial couplings, but has additional external features that provide increased resistance to torsional and bending moment forces which may be applied to the coupling, preventing premature activation in the unpredictable marine environment.

Key Features



Safety Break-Away Couplings Marine Version

The breaking bolt marine version break-away coupling is designed to minimize spillage and damage associated with pull-away incidents.

Features:

- **designed to be installed within a hose string where the coupling will have a length of hose attached to both sides**
- typical applications include: ship-to-offshore platform and ship-to-ship product transfer operations
- coupling automatically senses an excessive load, closes the valves and disconnects (*see page 24*)
- release is executed when force causes bolts to break
- female NPT is standard, optional ASA / DIN flanges or male NPT are available
- FKM is standard seal
- working pressure of stainless steel is **360 PSI** at ambient temperature (70°F)
- for information on repair kits visit us on-line at dixonvalve.com



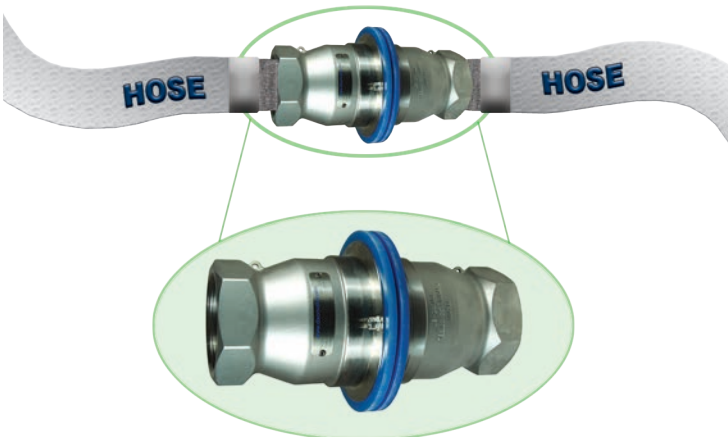
MSBC300SS - stainless steel

marine breaking bolt series

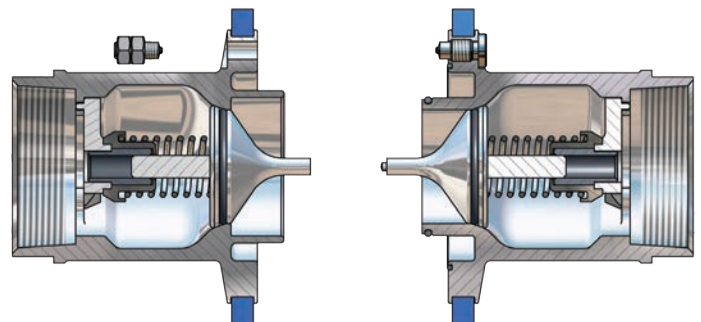
Size	DN	Flow Rate GPM	Width	Length	Weight lbs.	316 Stainless Steel
2"	50	200	4.5"	7.0"	5.7	MSBC200SS
3"	80	650	6.8"	11.0"	21.8	MSBC300SS
4"	100	800	8.3"	12.0"	34.1	MSBC400SS
5"	125	1100	10.6"	14.0"	70.4	MSBC500SS
6"	150	1500	12.0"	16.0"	103.0	MSBC600SS
2"	50	200	n/a	n/a	5.7	MSBC200SSMNPT ¹
3"	80	650	6.9"	11.8"	18.7	MSBC300SSMNPT ¹
4"	100	800	8.3"	13.6"	36.8	MSBC400SSMNPT ¹
5"	125	1100	n/a	n/a	70.4	MSBC500SSMNPT ¹
2"	50	200	5.9"	5.4"	12.1	MSBC200SSFL ²
3"	80	650	7.5"	9.0"	27.3	MSBC300SSFL ²
4"	100	800	9.0"	9.9"	46.7	MSBC400SSFL ²
5"	125	1100	n/a	n/a	n/a	MSBC500SSFL ²
6"	150	1500	12.5	15.1	110	MSBC600SSFL ²
8"	200	3700	13.5"	17.7"	157	MSBC800SSFL ²

¹ male NPT

² 150# ASA flange



Marine safety break-aways are designed to only release by inline pull and used between two strings of hose.

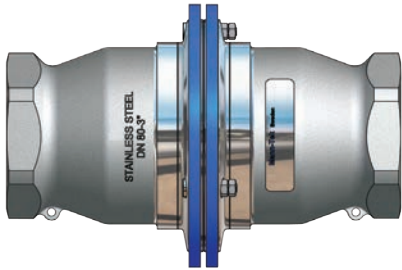


Safety Break-Away Couplings - Breaking Bolt Series

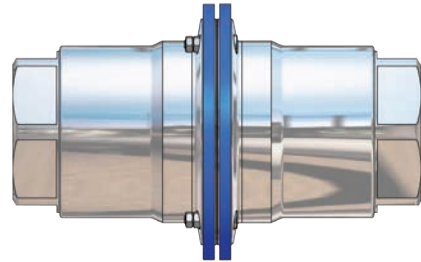
Examples of Connection Combinations

Features:

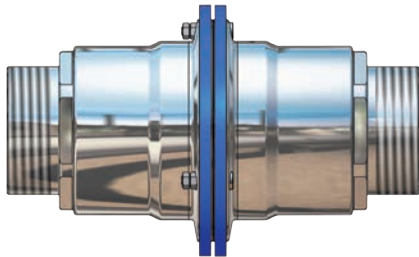
- BSP female thread / BSP female thread
- male thread / male thread
- groove / groove
- flange / flange
- NPT female thread / NPT female thread
- NPT female thread / NPT male thread (also available with BSP)
- NPT female thread / groove
- flange / thread (BSP / NPT female/male or groove)



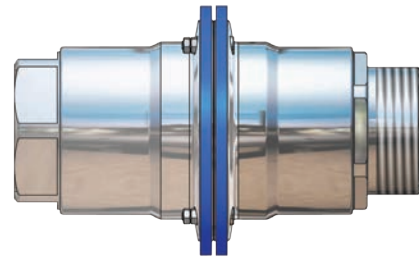
BSP female thread x BSP female thread



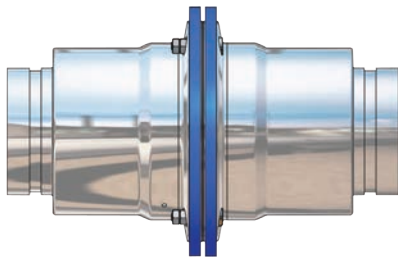
NPT female thread / NPT female thread



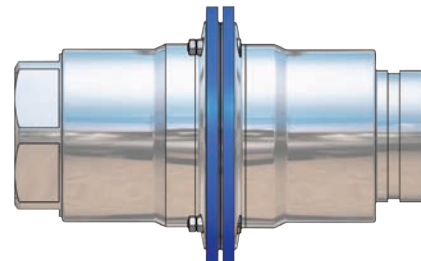
male thread / male thread



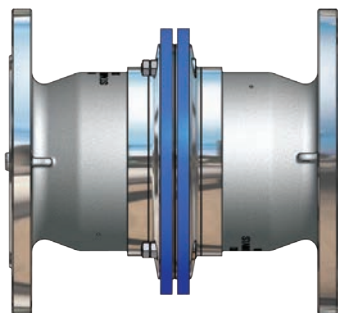
NPT female thread / NPT male thread (also available with BSP)



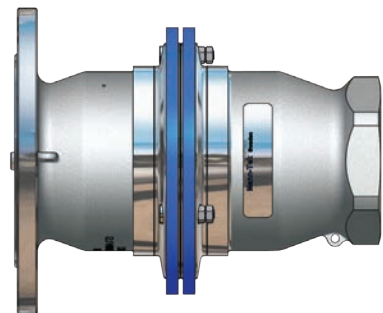
groove / groove



NPT female thread / groove



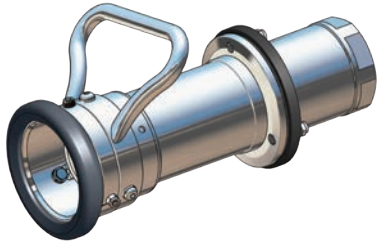
flange / flange



flange / thread (BSP / NPT female / male or groove)

Safety Break-Away Coupling - Options

Where there is a risk of excessive force on the hose due to unexpected movement between the loading and unloading station, combining the dry disconnect coupling or swivel with a safety break away coupling may be a solution.



dry disconnect hose unit with break-away integrated

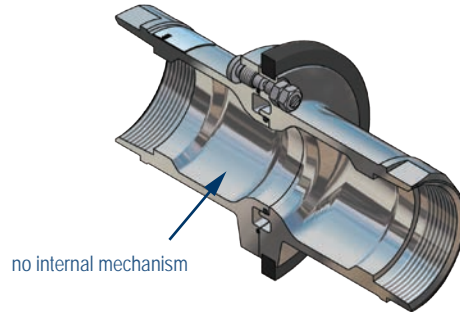


hose swivel with break-away integrated

Non-Closure Design

The non-closure design is an economical alternative which allows the coupling to break away due to pull-away/drive-away incidents thus protecting piping systems and equipment. This design allows spillage of product in these instances due to the lack of valving in the coupling.

Useful in applications where non-hazardous product is being conveyed and where there are no environmental concerns. Available in both Industrial and Marine versions. Consult the factory for more information.

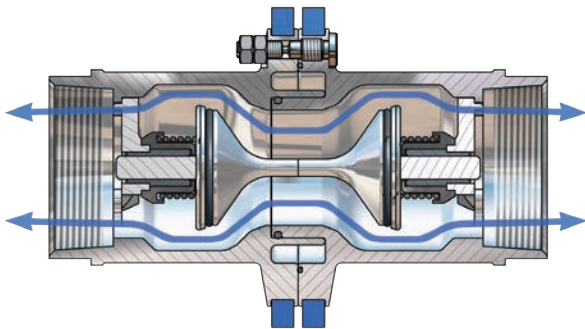


Safety Break-Away Couplings - Breaking Bolt Series

How It Works

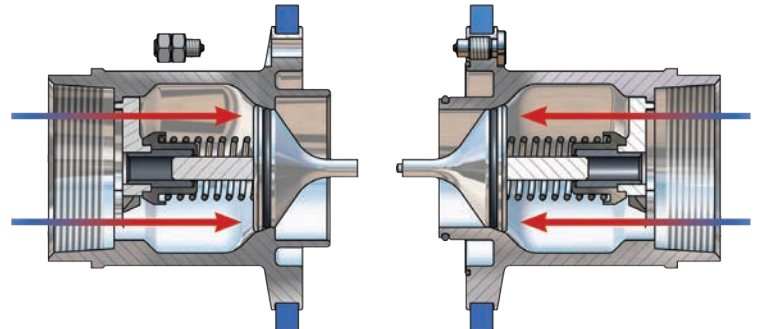
The SBCouplings, safety break-away couplings, have three external break bolts. In the case of axial tension all of the bolts take up the force corresponding to the break force on the hose with a safety margin.

Non-axial forces concentrate the tension forces more strongly on one bolt, so that the safety break-away coupling reacts in a natural way to the reduction of the hose break forces.



BEFORE emergency disconnect

The safety break-away valve consists of two halves, each with a valve that has a o-ring seal.



AFTER emergency disconnect

When the SBCouplings separate, it allows the valves to close. The two valves close rapidly, minimizing exposure to personnel and the environment.

Safety Break-Away Couplings - Breaking Bolt Series

Break loads for bolts should be based upon information specific to the application such as weight of unsupported hose or pipe and angle of pull associated with the specific application. Contact Dixon regarding specific applications.

ratings and kits for the standard aluminum industrial breaking bolt series

Size	Used On	kN rating	Pounds Force	Kits	
	<i>Aluminum</i>			<i>Standard Bolt</i>	<i>FKM O-ring</i>
2"	SBC200AL	9 kN	2,000	S-N2D-44-9	O-ND2-01
3"	SBC300AL	15 kN	3,000	S-N4D-44-15	O-ND4-01
4"	SBC400AL	24 kN	5,400	S-N5D-44-24	O-ND5-01
5"	SBC500AL	37 kN	8,300	S-NVD-44-37	O-NVD-01
6"	SBC600AL	54 kN	12,000	S-N6D-44-54	O-N6D-01
6"	SBC600ALFL	54 kN	12,000	S-N6D-44-54	O-N6D-01

ratings and kits for the standard stainless steel industrial breaking bolt series

Size	Used On	kN rating	Pounds Force	Kits	
	<i>Stainless Steel</i>			<i>Standard Bolt</i>	<i>FKM O-ring</i>
2"	SBC200SS	13 kN	2900	S-N2D-44	O-ND2-01
3"	SBC300SS	33 kN	7500	S-N4D-44	O-ND4-01
4"	SBC400SS	52 kN	11,700	S-N5D-44	O-ND5-01
5"	SBC500SS	81 kN	18,200	S-NVD-44	O-NVD-01
6"	SBC600SS	92 kN	20,700	S-N6D-44	O-N6D-01
6"	SBC600SSFL	92 kN	20,700	S-N6D-44	O-N6D-01
8"	SBC800SSFL	165 kN	37,000	S-N8D-44	O-N8D-01

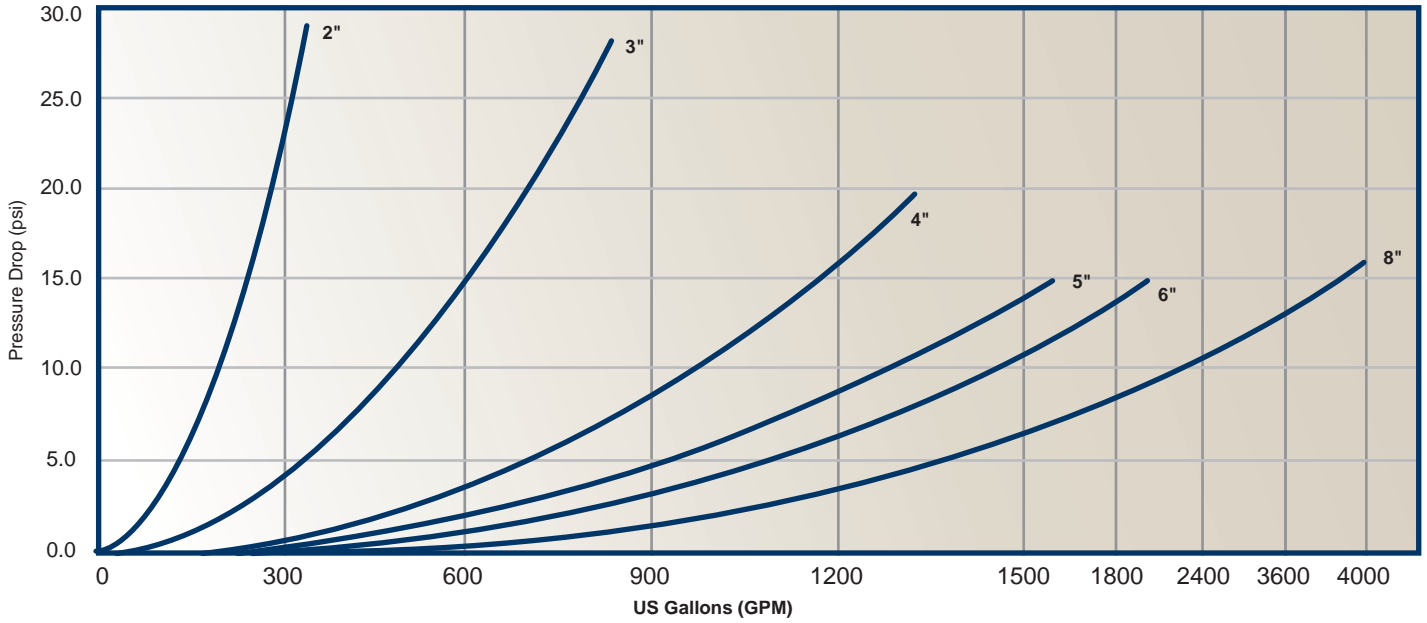
ratings and kits for the standard marine breaking bolt series

Size	Used On	kN rating	Pounds Force	Kits	
	<i>Stainless Steel</i>			<i>Standard Bolt</i>	<i>FKM O-ring</i>
2"	MSBC200SS	13 kN	2900	S-N2M-44	O-ND2-01
3"	MSBC300SS	33 kN	7500	S-N4M-44	O-ND4-01
4"	MSBC400SS	52 kN	11,700	S-N5M-44	O-ND5-01
5"	MSBC500SS	81kN	18,200	S-NVM-44	O-NVM-01
6"	MSBC600SS	92 kN	20,700	S-N6M-44	O-N6M-01
6"	MSBC600SSFL	92 kN	20,700	S-N6M-44	O-N6M-01
8"	MSBC800SSFL	165 kN	37,000	S-N8M-44	O-N8M-01



Scan
For more information on
Dry Disconnect Repair Kits.

**Safety Break-Away Couplings
Flow Diagram (Pressure Drop)**



Test Fluid: n-paraffin Temperature: 70°F Density: 100 oz/gal Viscosity: 1,75 cps

Product Application

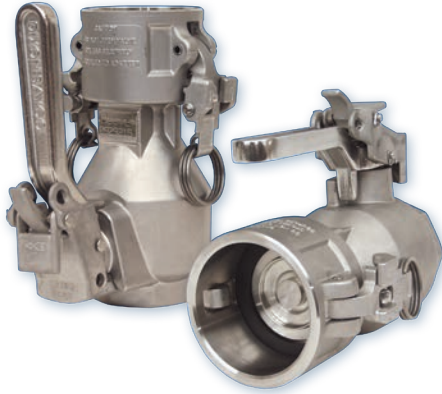
products in use at a facility



API couplings

Safety breakaway couplings

Cam and Groove Actuator Style Fittings couplers



1½" and 2" - stainless steel

Applications: The D2C style couplers work with the DBA adapters for applications where automatic closure for the coupler is not desired. This coupler is suited to vapor recovery, suction pump line and applications where it is necessary to easily drain the hose or piping for clean out. It can also be used when product retention in hose or pipe is desired but damage from accidental spill from an open coupler is not a concern.

Features:

- 316 stainless steel body
- 304 stainless steel internal components
- EZ Boss-Lock cam arms
- stainless steel locking lever included
- available with Buna, FKM, FKM-B, EPDM, PTFE encapsulated Silicone and PTFE encapsulated FKM seals
- used with poppeted adapter DBA series (*page 13*)

actuator style couplers

Size	Seal Material	Stainless Steel
1½"	Buna	D2C71-150
2"		D2C71-200
1½"	FKM	D2C72-150
2"		D2C72-200
1½"	PTFE encapsulated Silicone	D2C73-150
2"		D2C73-200
1½"	EPDM	D2C74-150
2"		D2C74-200
1½"	PTFE encapsulated FKM	D2C77-150
2"		D2C77-200
1½"	FKM-B	D2C79-150
2"		D2C79-200

API Bottom Rack Loading Fittings couplers

Dixon Bayco's API coupler uses a snap on connection where the coupling action is automatic upon contact with the API adapter. The coupler is completely modular so it can be built with various face seal combinations to be compatible with different alternative fuel, performance levels and applications. Two models are available: bonded nose seal and replaceable nose seal.

Features:

- 4" TTMA inlet mounting flange
- 5 cam design for easy alignment and tight connection
- ball-end handle for easy, comfortable operation
- no special tools needed for maintenance
- shaft seals can be changed without removing coupler from loading arm
- fully compliant with API RP1004:2003 specifications
- fully interlocked collar can not be opened when connected and can not be disconnected when opened
- one piece bonded nose seal ensures long life and cannot be washed out
- optional replaceable nose seal for quick replacement without removal from loading arm
- body: hard coated anodized AL 356 T6
- shroud: hard coated anodized AL 356 T6 with stainless steel insert
- link, shaft, pin and crank: hardened 17-4PH stainless steel
- cam: CF8M stainless steel
- poppet and bearing: ZA-12
- seal options: Buna, FKM-B, FKM GFLT
- weight: 20 lbs.
- maximum working pressure: **150 PSI**
- peak surge pressure: 350 PSI
- operating temperature:
 FKM seals: **-20°F to +400°F**
 Buna seals: **-20°F to +250°F**
- maximum flow rate: 600 GPM
- pressure drop: 3 to 4 PSI

API couplers

Seal Material	<i>Bonded Nose Seal #</i>	<i>Replaceable Nose Seal #</i>
Buna	5300	5400
FKM-B	5300B	5400B
FKM GFLT	5300G	5400G



bonded nose seal model - 5300

Chemical Compatibility
(Buna seals):

- gasoline
- diesel
- 10% ethanol
- B2 biodiesel blends

Chemical Compatibility
(FKM-B seals):

- gasoline
- diesel
- jet fuel
- avgas
- 100% ethanol
- 100% methanol
- 100% biodiesel
- any blend of the above fluids



More Information on
Dry Disconnect Products



Dixon Customer Service



Facebook Page



YouTube Videos

Dixon is recognized as the premier manufacturer and supplier of hose fittings and accessories spanning a wide range of industrial uses. Dixon's range includes products for food, dairy processing, beverage and brewery, mobile tankers, mining, construction, chemical processing, petroleum, oilfields, refining and manufacturing.

dixonvalve.com • *Customer Service:* 877.963.4966



The Right Connection®

Dixon Valve

800 High Street, Chestertown, MD 21620

Fax: 800.283.4966

